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## The benefits of wilderness experience for mental health: An exploratory study on nature-based therapies

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THE BENEFITS OF WILDERNESS EXPERIENCE FOR MENTAL HEALTH:  
AN EXPLORATORY STUDY ON NATURE-BASED THERAPIES

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A Project  
Presented to the  
Faculty of  
California State University,  
San Bernardino

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Social Work

---

by  
Trina Suzanne Goldberger  
and  
Diane Marie Waters

June 2000

THE BENEFITS OF WILDERNESS EXPERIENCE FOR MENTAL HEALTH:  
AN EXPLORATORY STUDY ON NATURE-BASED THERAPIES

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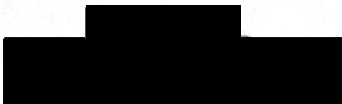
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by  
Trina Suzanne Goldberger  
and  
Diane Marie Waters

June 2000

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### Assigned Responsibilities

This was a two person project where authors collaborated throughout. However, for each phase of the project, certain authors took primary responsibility. These responsibilities were assigned in the manner listed below.

1. Data Collection:

Assigned Leader Trina Goldberger

Assisted by Diane Waters

2. Data Entry and Analysis:

Assigned Leader Diane Waters

Assisted by Trina Goldberger

3. Writing Report and Presentation of Findings:

a. Introduction and Literature

Assigned Leader Trina Goldberger

Assisted by Diane Waters

b. Methods

Assigned Leader Diane Waters

Assisted by Trina Goldberger

c. Results

Assigned Leader Diane Waters

Assisted by Trina Goldberger

d. Discussion

Assigned Leader Trina Goldberger

Assisted by Diane Waters



## ABSTRACT

This study explored the usage of nature-based therapies within mental health practices. Results added to the limited social work literature on this topic. The qualitative research design consisted of ten in-depth telephone interviews of practitioners who currently employ nature-based interventions. Participants indicated that utilizing wilderness experience in therapy is a relatively new concept in Western society, yet it is an ancient idea within many indigenous cultures. Subjects suggested that nature-based therapies may be well-suited to members of native cultures. Although to a limited extent, nature-based therapies are being applied in many ways, with a variety of clients, and in various settings throughout the country. As natural resources are being destroyed, the environmental and psychological fields are beginning to merge. Information regarding nature experience as therapeutic should be disseminated so as not to overlook yet another avenue for professionals to facilitate healing in clients.

## ACKNOWLEDGMENTS

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To All of Those With Respect for Nature

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## Chapter One: Introduction

Millions of Americans suffer from mental disorders such as anxiety and depression. In the Diagnostic and Statistical Manual of Mental Disorders (4th edition), the American Psychiatric Association (1994) states that the possibility of experiencing Major Depressive Disorder in women during a lifetime is approximately 10 to 25 percent. Among men, the lifetime risk is approximately 5 to 12 percent. The prevalence of Generalized Anxiety Disorder in the overall population is approximately 5 percent. The pervasiveness of these conditions in urban environments is profound, and may be a consequence of high-stress and unnatural lifestyles (Shepard, 1995).

Westernized societies are becoming increasingly industrialized and materialistic. Individuals have become dependent upon automobiles, climate-controlled homes, and offices illuminated with fluorescent lighting. Americans are bombarded every day with messages from the media regarding the new car, computer, cellular telephone, or electronic calendar they must have. Mainstream lifestyles are becoming faster and faster-paced, while stress levels and pollution levels are increasing. Road rage is infiltrating America's streets and highways because everyone is in a rush to get to work or beat the crowds. Climbing

the corporate ladder comes at the expense of spending time alone, and with family and friends.

How can individuals have time to relax, connect with those they care about, and engage in self-reflection if they are spending seventy-plus hours at the office or traveling to and from? People have unfortunately begun to neglect many aspects of their existence. Humans are composed holistically of bodies, minds, and souls that all need attention to thrive. Their lives have several dimensions consisting of physical, emotional, creative, intellectual, spiritual, and social to name a few. In order to assess, develop, and nurture growth in each area, they not only require awareness of these components, but an environment which fosters introspection.

People in urban environments have become very disconnected with their collective heritage: the earth. They forget that they are primates who evolved from the substances and conditions of the earth, rely on it for resources to survive, and will all return to the organic places they came from. Humans may categorize themselves in arbitrary "races", or cultures, or surroundings, yet they all share the commonality of nature as their life force. Because of discrepancies between the aforementioned

fundamental needs and modern lifestyles, problems have manifested themselves in people's bodies and minds.

According to Lovell and Johnson (1994), nature therapy consists of a variety of techniques based on the theory that contact with nature is healing. Interventions can include actual excursions into wilderness areas, which may be in the form of an organized program. Clients may be asked to simply spend time in nature as a homework assignment which can then be processed in therapy. Methods may also include assisting clients to encounter natural phenomena, such as animals or plants, in the office setting.

Duncan (1998) writes on the benefits of wilderness therapy as an area that has begun to be explored, but remains a body of knowledge still highly neglected. Research on the possibility of incorporating therapeutic outdoor experiences into social work practice is sparse. According to the National Association of Social Workers [NASW] (1997), social workers are morally responsible to utilize all options and resources available to help their clients function better in society. Because there is a virtually untapped medium for healing in nature, it is their responsibility to seek out potential treatment modalities in this area. Fortunately, the environmental movement is weaving its threads through the fiber of American society,

and it has been incorporated into most fields in one way or another. Although this subject is beginning to receive attention in the fields of psychology and social work, many clinicians remain uninformed on the concept.

The field of social work can always benefit from new, effective techniques to implement in practice. Clinicians owe clients the very best and complete treatment available, and when an unexplored arena is identified, it is their responsibility to take initiative to add new information to their knowledge base and practice skills.

Social work ideology encourages practitioners to always work from a strengths perspective. Social workers are supposed to foster independence in their clients, in accordance with the NASW Code of Ethics (1997). Clinicians are to facilitate the essence of empowerment in clients so that they will be able to take responsibility for their healing process. Practitioners should guide clients in alleviating the symptoms that are impairing their level of functioning or causing distress. Services are to be provided in the most expedient manner possible in order to allow clients to restore their previous level of functioning. Spending time in the outdoors would be a less invasive method of treatment than medication or long-term therapy. This idea is in synchronicity with the general

trend of the field moving away from the medical model. Rather than giving clients a diagnosis and sticking to a treatment regimen, social workers may initially suggest and evaluate the effectiveness of lifestyle changes on their conditions. Another benefit of this approach is that it is a more affordable option to standard treatments. People are increasingly amenable to alternative treatments in all health-related fields because they desire fewer side effects, and social workers should adjust accordingly to their clientele's clinical reality and worldview.

The results of this study are applicable to the micro, mezzo, and macro levels of social work. On the micro level, clients could enhance their self-esteem through the realization that they are able to foster their own healing by spending time in wilderness areas. This could be accomplished without the help of a therapist. In the great outdoors, there are many challenging opportunities to exercise, which is already considered helpful for individuals with anxiety, depression, or both. Physical obstacles to overcome may enhance self-esteem and help to relinquish phobias, fears, and anxieties as illustrated by programs such as Outward Bound. A renewed sense of confidence, mastery, and accomplishment can be incorporated into one's worldview and alter negative patterns of



thinking. A connection to the earth can lead to a sense of spirituality, stability, and purpose. Thoreau, as one of America's most renowned authors, repeatedly wrote of natural areas as places in which distractions of everyday life are absent, and individuals can think more freely (Duncan, 1998). This allows the opportunity to engage in relaxation and meditation, which are established methods of stress relief (Duncan, 1998).

Families may be engaged on a mezzo level as members bond while sharing quality time in the outdoors together. Therapeutic groups may also employ techniques that facilitate working together and developing trust with one another. This study is also applicable to the macro level in the sense that social work practitioners would be connecting clients to the existing resources of healing which abound in nature. In addition, practitioners may become advocates on the macro level for the protection of decreasingly-available natural areas in the years to come, since they have powerful, restorative properties for clientele.

Another benefit of exploring the efficacy of spending time in the outdoors on one's mental health is that this concept already fits nicely into the cultural schemas of many. People from indigenous ethnic backgrounds, such as

Native Americans, often do not benefit greatly from talk therapy, and may derive insight on healing from earth-based experience or metaphors.

Native Americans existed historically as an oral language people. They used imagery to express many thoughts in graphic similies and natural-world metaphors. A fundamental incongruence appears in the lack of adequate knowledge about Native American nonverbal communication style by many counseling professionals. In addition, an apparent lack of process techniques and skills for dealing with nonverbal communication with Native American clients is evident. Outdated and defective models need to be updated to reflect Native American language and customs. The potential worldview variances and diverse Native American values require a very skillful practitioner to effect positive outcomes (Herring, 1992, p. 38).

Nature therapies are beginning to appear within various disciplines of the helping professions. Some mental health workers, namely the budding group of clinicians who call themselves Ecopsychologists, are striving to apply these principles in their practices. Nature-based interventions have even been used in addition to traditional treatments given in psychiatric hospitals (Kelley, Coursey, & Selby, 1997).

In conclusion, this study explored the following research questions: (1) What do nature-based therapies consist of?; (2) Why are nature-based interventions effective?; (3) What types of clients are nature-based therapies most helpful for?

#### Literature Review

White and Heerwagen (1998) state that the benefits of the natural environment on mental health have been largely ignored simply because negative reactions are easier to study. There is general information available on the subject, but actual empirical research on this subject is sparse (Kelley, Coursey, & Selby, 1997). Kelley, et al. state that further studies are needed to show that outdoor adventure activities are an effective method of treatment for adults with mental disorders. However, professionals are beginning to delve into the notion that because people are living in unnatural circumstances, they must re-recognize their intimate connection with nature in order to reach their fullest potentials. "Nature connecting activities balance our lives by letting natural connectiveness identify and be our common cause. By reducing stress while inducing participation, the activities promote recovery from destructive habits, dependencies and dysfunctions" (Cohen, 1993, p. 279).

White and Heerwagen (1998) use the term "biophilia" in describing innate positive effects people tend to experience when immersed in natural areas. They write that even when merely presented with representations of natural phenomena, such as running water or shade trees, euphoric feelings often ensue. The authors suggest that the automatic reactions people have are a vestige of evolutionary processes. They imply that after the difficult work of securing foodstuffs, early humans found that relaxing in tranquil areas was their only means of repose. Baird and Bell (1995) also support this premise by proposing that "the preference for natural views may stem from a genetic biophilia motive. That is, human ancestors may have gone through a natural selection favoring those who could develop affiliative or psychologically restorative responses to natural environments" (p. 848).

Many Western indigenous cultures, and Eastern cultures based on unchanging doctrines over the centuries, have exhibited tendencies to seek remedies via the natural environment throughout history. Early healers formulated treatments based on their beliefs that people are connected with the elements of the earth (Roszak, 1995). According to Moriarty (1999), indigenous peoples "needed to be in synch with the seasons and surroundings to plant crops, navigate,

and survive" (p. 40). "American Indians have understood and respected the Earth for centuries with a sense of sacred connection that is available to all of us" (Park, 1996, p. 320). In fact, Native Americans tend to interpret insanity as a void in linkage to the earth (Roszak, 1995).

Social workers deal with clients from a variety of backgrounds and ethnicities. Unfortunately, the essence of non-mainstream ideologies is sometimes left out of social work practice. Clinicians should make efforts to learn about the valuable information embedded in the cultures of the world to better understand those who identify with them. Clinicians are then enabled to apply befitting, and even "alternative" (according to conventional therapists), techniques with clients of any background.

As social workers begin to take multicultural and relational perspectives seriously, the limiting nature of the Eurocentrism of our dominant epistemologies and pedagogies and the professional practice of community and allied health services will come under greater scrutiny, and we may even question some long-held beliefs about how to provide social and health care services. There will be greater awareness of the role and importance of spirituality, shamanic practices, and the role of the natural world (biological ecology) as essential elements of social work practice (Voss, Douville, Little Soldier, & Twiss, 1999, p. 238).



Modern society separates people from the natural environment (Roszak, 1995). Namely urban living not only removes people from more natural settings; it also adds factors such as high noise levels and overcrowding (Freeman & Stansfeld, 1998). Freeman & Stansfeld also propose that social pathologies such as "delinquency and crime, disordered or broken family relationships, and addiction" (1998, p. 148) are on the rise. People become acclimated to the overstimulating and harassing conditions in which they live. In fact, one nature-experience study, involving urban dwellers, found the participants became distraught when spending time in the wilderness because the silence was foreign and novel to them (Kaplan & Kaplan, 1989). Many people in Westernized societies are living fast-paced and pressured lives that seemingly leave no room for curative contemplation. Hillman (1995) indicates that such lifestyles are unhealthy in the following statement:

The "bad" place I am "in" may refer not only to a depressed mood or an anxious state of mind; it may refer to a sealed-up office tower where I work, a set-apart suburban subdivision where I sleep, or the jammed freeway in which I commute between the two (p. xx).

Greenway (1995) counsels that:

It is said that without intimacy with nature, humans become mad. It is also said that our culture is pathogenic to natural processes. Thus, it seems

healthy to attempt to retreat from  
"culture" and "natural processes" in  
their fullest and most pristine forms  
(p. 127).

A relatively new group of individuals, called  
"ecopsychologists," believes in this concept and feels that  
merging natural processes and healing practices is  
necessary. Ecopsychology is a concept that links the genres  
of ecology and psychology (Reser, 1995). These  
practitioners view the needs of humans and the earth as  
intimately related. Overall health, functioning, and  
quality of life depend on the earth continuing to thrive and  
vice versa. In essence, the foundation for life and  
spirituality is in jeopardy, and people are feeling the  
effects down to the deepest levels of their being.  
Therefore, healing rituals must include both reconnecting to  
the earth and nurturing the earth itself (Reser, 1995).  
According to Spilner (1997), connecting with nature may be  
as simple as taking a walk in the woods while paying close  
attention to one's senses and breath, as well as  
appreciating the beauty of a tree, flower, or sunny day.

Roszak (1992) posits several principles of  
ecopsychology. People share a collective unconscious that  
stems from prehistoric situations in which humans depended  
upon the earth and natural phenomena. He believes that this

unconscious is currently submerged in people's thoughts, and needs to be tapped into for deep healing to occur. While other therapies strive to repair disconnected relations between people, ecopsychologists strive to repair a more primal relationship between people and nature. These practitioners believe, as do many mainstream clinicians, that childhood is the most vital stage of development. People are born with their ecological unconscious intact, yet as they mature in those environments that are materially-based and superficial, they lose their sense of harmony and wonderment with nature. Because of this phenomenon, people are left with a void and feeling of disconnectedness that affects mental health functioning. Healing via nature-centered metaphor, artwork, and physical wilderness excursions enables people to tap into their fundamental drive for identification with a greater whole, and hence, remedies deep-rooted stressors (1992).

Universal social work ideologies such as systems, biopsychosocial, person-in-environment, and the strengths perspective are congruent with the idea of identifying with a greater whole. Humans are comprised of many elements which interact to form the whole being (organs, tissues, intellect, and spirit). People, in turn, form social systems via interacting with one another, and on the

greatest scale, people are related to the earth which supports them. Humans must give attention to all aspects of their being, social network, and planet (which is their central home) in order to remain viable. The ideologies of the social work field acknowledge the importance and the fact that people innately have the power to do so.

The theory behind transpersonal psychology also suggests that the power of recognizing one's space within and beyond the web of humanity is healing. In order to reach optimal health potential, individuals must identify with forces beyond their own egos. Vaughan (1985) explains that:

...Transpersonal psychology affirms the possibility of wholeness and self-transcendence. Transcendence is explored as manifested in and through personal experience. A transpersonal view of human relationships recognizes that we exist embedded in a web of mutually conditioned relationships with each other and with the natural environment. Any attempt to improve the human condition must therefore take global, social, and environmental issues into account (p. 11).

The premises of Gestalt psychology also coincide with the idea of nature as a great healer. The goal is to complete the whole which cannot be attained without recognizing the whole in its representation: the natural environment. Swanson (1995) writes that the principles

include the following ideas: that humans and society are in fact only parts of the earth; that people can learn a great deal if they stop and listen to the lessons of nature; that people need to be fully integrated with their bodies; and that both introspection and extrospection of sensory awareness are essential (Swanson, 1995).

Practitioners can use the great outdoors within therapeutic modalities via differing philosophies such as challenging and/or relaxing approaches. For example, persons with serious mental illness partook in an outdoor adventure program (Kelley, Coursey, & Selby, 1997). Participants had been receiving treatment on an outpatient basis from psychosocial rehabilitation programs for an average of over ten years. Few of the participants had demonstrated significant improvement. As a supplement to their previous treatment, several of these clients were divided into nine adventure groups. Groups were led on day trips, including hiking, rock-climbing, and either spelunking or canoeing. Each group met once a week for a total of 9 weeks, and regular discussions about emotions and experiences were incorporated. Subjects completed the Beck Depression Inventory, the State-Trait Anxiety Inventory, and the Anxiety and Depression subscales of the Brief Symptom Inventory (BSI). These measures were used to detect anxiety



and depression levels in the subjects both before and after their wilderness experiences, and in both the experimental and control groups. Kelley, Coursey, & Selby (1997) found that subjects in the experimental group showed marked changes in scores on the Anxiety and Depression subscales of the BSI.

Exercise in the outdoors may have many benefits. As aforementioned, connecting with the earth can have enlightening and comforting consequences in and of itself. Yet, the physical exertion sometimes required can also release the "feel-good" hormones in people's brains which help to alleviate symptoms of conditions such as anxiety and depression.

Many destination activities can have strenuous-exercise components such as day-hiking, canoeing, and swimming. When it is time to leave the destination there is the exercise involved with exiting the wilderness area. These activities add up to a physically-demanding experience that can have health benefits resulting from the aerobic and cardiovascular exercise, as well as the mental health improvements that come from satisfying a challenging task (Duncan, online reference, 1998).

In addition, the sense of accomplishment in overcoming obstacles and traversing difficult terrain leaves long-lasting imprints on self-esteem and concept. Another

outlook on outdoor treatment methods proposes that "the therapeutic qualities of the group process and the use of the wilderness adventures as a metaphor for real-world problem solving" are beneficial (Weston & Tinsley, 1999, p. 30). Therefore, skills obtained during the adventures, if internalized, can be applied to other obstacles one encounters in everyday life.

Several techniques are suggested for those who want to cultivate relaxation and derive respite for anxiety symptoms. Meditation or prayer, and periods of reflection can augment an outdoor therapeutic experience (Park, 1996). Therapists may already even be using nature-based techniques in their offices; facilitation relaxation by decorating with landscape pictures, plants, and aromatherapy instruments are good examples. They may be utilizing guided imagery, which usually involves the clinician instructing the client to envision natural, beautiful places that invoke calm feelings (Perrine, 1993). Giving homework assignments of simply taking slow, roaming walks, while paying close attention to sensations experienced can be useful (Moriarty, 1999).

In summary, American society has just begun to shift toward ideas of natural philosophies, spiritual theologies, and nature-based healing practices. Although this is

occurring slowly, the future seemingly holds promise for innovative, alternative, and holistic techniques.

Is it possible, then, that every nature poet since Wordsworth has been right in telling us our sanity depends upon access to wilderness and natural wonders, upon the companionship of trees and beasts, and above all upon the reverence we experience in the presence of the inhumanly magnificent? If so, then healing the wounded psyche may require that we find ways to "prescribe nature" (Roszak, 1993, p. 59).

## Chapter Two: Methods

### Participant Demographics

There were a total of 10 participants (7 women and 3 men). The range of participant ages was from 29 to 67 years (Mean = 43.2 years, SD = 13.2 years). Five participants had their Masters of Social Work degrees. Three had doctoral degrees in psychology. One participant had two masters degrees (clinical and transpersonal psychology), and was licensed as a Marriage and Family Therapist. One participant had a Bachelor of Arts degree in Outdoor Education.

Four participants specialized in systems and family therapy, 2 of whom were also Ecopsychologists. One Ecopsychologist employed Gestalt therapy within the systems and family orientation. Three claimed no specialty, and 2 stated they specialized in working with adolescent females. One participant specialized in "Jungian Depth Psychology."

Five participants practiced in a private agency setting. Three had a private practice. One participant worked both in a private agency, and had a private practice. One participant was a professor at a graduate institution. Length of time that participants reported having worked in the aforementioned agencies (and/or private practice) ranged from 1 to 25 years. (Mean = 8.35 years, SD = 6.7 years).

Participants worked in rural, suburban, and urban settings that ranged from coast to coast.

### Study Design

The researchers chose to utilize a qualitative study design in order to explore this subject. Because this is a relatively new sector of clinical social work and psychology, actual studies on nature-based therapies are sparse. The information currently available mostly consists of theoretical discussions about merging the environmental and psychological fields, yet details about actual application to mental health clientele are neglected. The researchers conducted 10 in-depth telephone interviews.

### Research Questions

The investigators explored the following general research questions: (1) What do nature-based therapies consist of?; (2) Why are nature-based interventions effective?; (3) What types of clients are nature-based therapies most helpful for?

In order to address these broad research areas, the investigators asked each participant 13 in-depth, open-ended questions. Participant demographics were collected at the onset of each interview. Investigators further explored this subject by inquiring about clinician interest in this subject, and actual treatment modalities.

In order to maintain validity and reliability within this study, researchers strived to ask non-leading questions, and to give participants the opportunity to ask questions if anything was unclear to them. Subjects were also given the opportunity to offer any further information regarding their nature-based therapeutic practices. The investigators derived a varied sample of subjects from differing approaches to nature-based interventions in order to further ensure reliability. Cultural bias was avoided by not inquiring about participants' ethnicities, and by avoiding culturally-loaded questions. Refer to Appendix A for complete list of interview questions.

### Procedures

Given the highly specific nature of inquiry, the most appropriate methods of sampling were availability, purposeful, and snowball. The researchers derived the sample by contacting individuals and/or agencies that were encountered during the literature review. Upon initial contact the purpose of the study, the extent of participant commitment, terms of confidentiality, and type of incentives being offered were explained. If clinicians were deemed appropriate for, and willing to, participate, telephone interviews were scheduled at that time. See Appendix B for Standardized Introduction to Prospective Participants.

Verbal informed consents were collected at the onset of each interview. Subjects acknowledged that they were at least 18 years of age, that they understood that their participation was voluntary, and that they could withdraw their participation at any time without penalty. Confidentiality was maintained because neither subjects nor agencies were specifically identified in conjunction with responses. No adverse effects on subjects were anticipated. A copy of the Verbal Informed Consent can be found in Appendix C.

On average, interviews lasted between 20 and 30 minutes each. Participants were informed that both researchers would be on the phone and recording their responses so as not to eliminate any pertinent information. Therefore, subjects were asked to answer clearly and concisely to enable researchers to handwrite responses verbatim. Along with calendar incentives, debriefing statements which contained contact and publication information were mailed to each participant.

## Chapter Three: Results

### Research Questions

In general, this study explored the following questions: (1) What do nature-based therapies consist of? (2) Why are nature-based interventions effective? (3) What types of clients are nature-based therapies most helpful for?

### Content Analysis

The researchers utilized a qualitative content analysis procedure. Both investigators recorded participant responses by hand during each interview to ensure pertinent information was not eliminated due to human error. Therefore, the first step in the analysis process was to consolidate data. Responses were operationalized as concepts by the researchers, and then listed on one 3" x 5" card for each question. Letters of the alphabet were assigned as codes to represent each concept. As response concepts were counted, themes emerged from the data for each question. Primary themes were differentiated from simple concepts if two or more participants gave similar responses. It should be noted that during interviews, some participants prematurely answered subsequent questions (for questions 5, 7, and 11). Those portions of their responses were then classified into the appropriate answer categories.



## Research and Interview Questions

Research Question 1. In order to explore what nature-based therapies consist of, the researchers asked the following interview questions: (#4) Do you advocate a challenge/adventure perspective, a meditative/restorative perspective, both, or neither?; (#7) If you utilize other types, methods, or models of treatment, do you use nature-based therapy as a supplement, in conjunction with others, or exclusively depending upon the client?; (#9) What particular nature-based activities do you utilize, and where are they implemented?

For interview questions #4 and #7, each participant gave only one response. For question #4, seven participants stated they advocate both perspectives, and three stated they advocated meditative/restorative perspectives.

For question #7, five participants stated that they used nature-based therapies primarily (other types are used only as adjuncts). Three participants used nature-based therapies in conjunction with, or as a supplement to, other types of treatments. One participant used nature-based therapy exclusively, and another stated that treatment varies depending upon the client.

For question #9, several participants gave more than one response, for a total of 34. Primary themes (more than

one similar response) that emerged from the data are: hiking, survival skills, backpacking, solos, "soul-tracking", and vision quests. It should be noted that "soul-tracking" involves slow walking, observing, and touching the items one is drawn to, and thus heightening the senses. Several simple concepts were apparent as well. See Table 1 for a listing of these responses.

Some participants also indicated the settings in which they implement nature-based therapies. Settings included the practitioner's backyard, the ocean, mountains, parks, the desert, or whatever the client specifically desires. Some clinicians stated that they facilitate day-long wilderness activities and hold extended workshops, and some choose to process client wilderness experiences within traditional-type counseling sessions.

Table 1

Nature-Based Activities

Primary Themes	(n > 1)	(N = 34)	(%)
Hiking	(n = 2)		(5.9%)
Survival skills	(n = 2)		(5.9%)
Backpacking	(n = 2)		(5.9%)
Solos	(n = 2)		(5.9%)
"Soul-tracking"	(n = 2)		(5.9%)
Vision quests	(n = 2)		(5.9%)
Simple Concepts (n = 1) (All responses = 2.9%)			
Teamwork		Sailing	
Pick-up-sticks		Snorkeling	
Trust walks		Sweat lodge	
Rock-in-water		Use of metaphor	
Ritual		Rite of passage	
Holotropic breathwork		Medicine wheel	
Drumming/Dancing		Astronomy	
Altered state of consciousness		Group bonding	
Natural world history-taking		Homework assignments	
Connecting with natural being		Sea kayaking	
Canoeing			
Psychoeducation re: relation of well-being and environment			

Research Question 2. In order to explore the effectiveness of nature-based interventions, the researchers asked the following interview questions: (#3) Describe why you use nature-based therapy, or if you have a particular philosophy behind your usage?; (#8) In your opinion, what are the healing factors of nature that inspire you to use this therapy?; (#12) What indicators do you use to measure success with nature-based treatment?

For question #3 several participants gave more than one response, for a total of 33. Primary themes that emerged from the data are: power/truth in wilderness, non-prejudiced environment, reconnection with nature, total sense of self (body-mind-spirit), reconnection with body/feelings, opens pathways for change. Several simple concepts were apparent as well. See Table 2 for a listing of these responses.

There were 35 total responses given for question #8. Primary themes were: spirituality, breaks control patterns, peace/comfort, less distraction, reflection of self, natural rhythms, wisdom/truth, deeper consciousness, gives life perspective, diversity, and nature as teacher. See Table 3 for these and simple concept responses.

A total of 31 responses were given for question #12. Primary themes included: transition to home, maintenance of

learning, client self-report, client survey, and objective observations. Primary themes and simple concepts are presented in Table 4.

Table 2

Reasons for Clinician Usage of Nature-Based Therapies

Primary Themes	(n > 1) (N = 33)	(%)
Reconnection with nature	(n = 4)	(12.1%)
Non-prejudiced environment	(n = 3)	(9.1%)
Opens pathways for change	(n = 3)	(9.1%)
Power/truth in wilderness	(n = 2)	(6.1%)
Sense of self (body-mind-spirit)	(n = 2)	(6.1%)
Reconnection with body/feelings	(n = 2)	(6.1%)
Simple Concepts (n = 1) (All responses = 3%)		
Agency treatment model	Nourishing	
Quickly effective	Free	
Good for children	Natural	
Available to most people	Experiential	
Distraction-free environment	No therapist needed	
Landscape reflects person		
Deep Ecology theory		
Context/Perspective		
Need to diminish "entitlement" re: dominance over nature		
Psychology has neglected totality of humanness		
Environmental "grief" as it deteriorates		
People are happiest in natural environment		

Table 3

Healing Factors of Nature

Primary Themes	(n > 1)	(N = 35)	(%)
Spirituality	(n = 5)		(14.3%)
Peace/Comfort	(n = 4)		(11.4%)
Less distraction	(n = 3)		(8.6%)
Breaks control patterns	(n = 2)		(5.7%)
Reflection of self	(n = 2)		(5.7%)
Natural rhythms	(n = 2)		(5.7%)
Wisdom/Truth	(n = 2)		(5.7%)
Deeper consciousness	(n = 2)		(5.7%)
Gives life perspective	(n = 2)		(5.7%)
Diversity	(n = 2)		(5.7%)
Nature as teacher	(n = 2)		(5.7%)
Simple Concepts (n = 1) (All responses = 2.9%)			
Liberating			
Neutrality			
Healthier lifestyle			
Exposes coping patterns			
Presents natural challenges			
Interrupts negative patterns			
Demands body is present			

Table 4

Success Indicators of Nature-Based Treatments

Primary Themes	(n > 1)	(N = 31)	(%)
Client self-report	(n = 5)		(16.1%)
Objective observations	(n = 3)		(9.7%)
Transition to home	(n = 2)		(6.5%)
Maintenance of learning	(n = 2)		(6.5%)
Client survey	(n = 2)		(6.5%)
Simple Concepts	(n = 1)	(All responses = 3.2%)	
Adaptation to school		Healing	
Healthier coping patterns		Anecdotal	
Consistency of behaviors		Life direction	
Behavioral changes		Parental report	
Recidivism rate			
Follow-up calls			
Guiding vision			
Broader life perspective			
Parent evaluations			
Long-term clinical study			
Life reference point			
Powerful inner experience			
Context of returning to earth for healing			



Research Question 3. In order to explore the types of clients nature-based therapies are most helpful for, the researchers asked the following interview questions: (#10) What issues do nature-based therapies help clients address successfully (e.g. anxiety, depression, self-esteem)?; (#11) What characteristics of clients may enable them to respond more favorably to nature-based treatments (e.g. gender, ethnicity, or religious affiliation)?; (#13) Have you encountered clients with certain issues for which this therapy was not useful, and if so, why do you think it was not successful?

In total, there were 50 responses for question #10. Several primary themes emerged including: depression, attention deficit hyperactivity disorder (ADHD), anxiety, self-esteem, substance abuse, all issues, relationship problems, and trauma reactivity. These themes and simple concepts can be found in Table 5.

Fourteen responses were given for question #11. Six participants stated that all clients have an equal chance of responding favorably to wilderness experience. However, one of these respondents identified Native Americans as possibly being very likely to benefit. Two participants stated that males may benefit more positively than females, because males may be more comfortable with outdoor experiences. One

of those participants also suspected males may be more inclined to believe in themselves than females (in American society). Simple concepts stated were: spirituality, insightfulness, ability to trust, progressive worldview, and people of color (due to nature-based traditions).

For interview question #13, there were a total of 21 responses given. Several primary themes emerged. Five participants stated that clients with psychotic disorders would not be amenable to nature-based therapies. Three respondents said suicidal clients are not appropriate for these treatments (due to safety issues). However, one of those participants said that after 6 months of no client suicidal ideation (or active symptoms of an eating disorder) the client would be accepted for this type of treatment. Two participants stated that all client issues can be addressed with nature-based interventions. Two respondents said that violent or aggressive clients are not appropriate for these treatments (due to safety issues). Two participants stated that some clients may be too "armored" (their defense mechanisms may be too rigid) for nature therapy to be effective.

Several simple concept issues were also identified for interview question #13: bipolar disorder, frontal lobe deficits, conduct disorder, lack of interest in nature,

fresh trauma victims, very weak ego structures, and fear of nature treatment.

Table 5

Diagnoses and Issues Amenable to Nature Therapy

Primary Themes	(n > 1)	(N = 50)	(%)
Anxiety	(n = 7)		(14%)
Depression	(n = 6)		(12%)
Self-esteem	(n = 5)		(10%)
Substance abuse	(n = 4)		(8%)
All issues	(n = 4)		(8%)
ADHD	(n = 3)		(6%)
Relationship problems	(n = 2)		(4%)
Trauma reactivity	(n = 2)		(4%)
Simple Concepts (n = 1) (All responses = 2%)			
Adolescent issues		Rites of passage	
Fears/Phobias		Couples	
Emotional numbness		Spirituality	
Self-awareness		Grief	
Motivation		Self-mutilation	
Indecision		Bipolar	
Eating disorders		Mild schizophrenia	
Family problems			
Conduct disorder			
Disconnection with earth			

Additional Interview Questions. The following questions were intended to further explore interest and usage trends among clinicians who advocate wilderness experience as therapeutic. Interview question (#1) How did you become interested in using nature therapy?; (#2) How long have you been utilizing this type of therapy?; (#5) Do you utilize other types of therapy besides nature-based treatment?; (#6) What method(s) and/or model(s) do you follow if any?

For interview question #1, four participants stated that they were inherently drawn to practicing nature-based therapy because they grew up spending time in the wilderness. Three participants said they were introduced to the idea of this type of therapy via colleagues. Two participants stated they wished to combine personal and professional interests. One respondent said participating in a personal vision quest sparked professional interest in these therapies.

For interview question #2, the range of participant experience with nature-based therapies was from 1 to 15 years. (Mean = 9.2 years, SD = 4.7 years). For interview question #5, eight participants stated that they also utilize other types of therapy (besides nature-based

interventions), and 2 participants said they use nature therapies exclusively.

For interview question #6, several primary themes emerged out of the 58 responses given. Primary themes included: systems theory, group dynamics, behavioral model, structural, relational, dream interpretation, storytelling, earth-based rituals, expressive art therapies, use of myths, reflective listening feedback, survival skills and minimal impact psychoeducation, use of insight, eclectic perspective. See Table 6 for a listing of these and simple concepts.

Table 6

Methods, Models, and Orientations of Therapy Reported by the  
Sample of Interviewees

Primary Themes	(n > 1)	(N = 58)	(%)
Systems theory	(n = 5)		(8.6%)
Group dynamics	(n = 4)		(6.9%)
Behavioral model	(n = 3)		(5.2%)
Eclectic	(n = 2)		(3.4%)
Structural	(n = 2)		(3.4%)
Relational	(n = 2)		(3.4%)
Dream interpretation	(n = 2)		(3.4%)
Storytelling	(n = 2)		(3.4%)
Earth-based rituals	(n = 2)		(3.4%)
Expressive art therapies	(n = 2)		(3.4%)
Use of myths	(n = 2)		(3.4%)
Reflective listening feedback	(n = 2)		(3.4%)
Use of insight	(n = 2)		(3.4%)
Survival skills/minimal impact education	(n = 2)		(3.4%)
Simple Concepts (n = 1) (All responses = 1.7%)			
Object Relations			Rites of passage
Existential			Vision quests
Gestalt			Milieu

Table 6 Continued

Simple Concepts (n = 1) continued	
Exploring individuality	Psychodynamic
Archetypal	Deep-level work
Cognitive-Behavioral	Humanistic
Drug/Alcohol interventions	Transpersonal
Individual	Spirituality
Reality therapy	Instilling hope
Feminist Psychoanalytic	Self-reliance
Use of ancient teachings	Coping skills
Work in stages: training, expedition, solo, final	
Assessing history of natural experience during childhood	



## Chapter Four: Discussion

The investigators were not predicting any particular outcomes, and had no preconceived expectations of findings, except that spending time in wilderness areas is generally helpful and relaxing.

Research question #1 was: What do nature-based therapies consist of? Most participants in this study utilize both the challenge/adventure perspective, and the meditative/restorative, with a few applying only the meditative perspective. Interestingly, older practitioners reported stronger inclinations toward the latter.

Most of the subjects stated that nature therapies are their primary approach, but use others as adjuncts to, or in conjunction with, these therapies. Some of the major wilderness exposure activities therapists prescribe include: hiking, teaching survival skills, backpacking, solo experiences, "soul-tracking", and vision quests. These findings are consistent with Moriarty (1999), Lovell and Johnson (1994), and Spilner (1997).

Research question #2 was: Why are nature-based interventions effective? Some of the main reasons practitioners reported using nature as therapy were: human need for reconnection with nature, body, and feelings; wilderness is powerful, truthful, and non-prejudiced;

natural environment opens pathways for change, and can provide a space to feel the totality of one's self.

Participants in this study identified several healing factors of nature. Some of the main ones were: sense of spirituality, peacefulness and comfort, and provides less distracting environment that helps to break control patterns, and gives life perspective. These findings supported Duncan's ideas (1998). Participants reported measuring success via client self-report and objective observations of behavior changes.

Research question #3 was: What types of clients are nature-based therapies most helpful for? Many practitioners said that nature-based therapies can be helpful for all mental health issues. Several specific issues reported were: anxiety, depression, self-esteem, substance abuse, and ADHD. These findings were consistent with Kelley, Coursey, & Selby (1997) regarding anxiety and depression.

Most participants stated that these therapies can be helpful for all clientele regardless of personal characteristics. A couple subjects stated there are no issues for which these therapies cannot be helpful. Some issues participants stated as non-amenable to nature therapies are: psychotic disorders, actively suicidal, violent, or aggressive clients, or those whose defense

mechanisms are too deeply-ingrained. There were, however, contradictory results given in this arena. A couple participants stated some disorders were amenable to nature-based therapies, whereas the same responses were also given as non-amenable disorders (e.g. conduct and bipolar disorders).

Researchers were also interested in specific theoretical methods and models participants employed. The most commonly mentioned models were: systems theory, group dynamics, and behavioral. Because the majority of well-known existing models were identified, this suggests that nature-based therapies can be viewed more as an overall perspective rather than as a specific approach. Perhaps, any model may be applied within a beneficial wilderness framework. The clinicians who participated in this study are from various disciplines within the field of mental health, and apply a multitude of approaches within various settings.

A few participants mentioned that they had learned of nature-based therapies only via word-of-mouth. It is possible that more clinicians may employ wilderness exposure techniques if information was more widely disseminated. No clinicians in this study reported more than 15 years of experience with these therapies. Given that, nature-based

therapy is a relatively new framework for practice.

Ironically, this "new" practice among Western clinicians is actually based in ancient tradition. Since clients from indigenous cultures may already view the earth as curative, reconnecting clients with nature is consistent with the social work value of providing culturally-sensitive services.

This study expands theoretical knowledge and thus may help to educate social work clinicians about nature-based therapies, adding a new avenue for many practitioners in helping clients help themselves. Advantages of wilderness treatments are that they may be less invasive, less expensive, and more empowering than overuse of medications and/or long-term clinical treatments (once guided by a therapist, clients can utilize nature as therapy on their own).

Limitations and Strengths. In retrospect, the researchers concluded that this study could have been improved by increasing the clarity of certain interview questions. For instance, questions #5 and #7 could have been omitted, questions #10 and #13 could have been combined, and #11 and #6 could have been reworded. If time had permitted, this study could have been further improved with a larger sample size as well. A strength of this study

lies in the open-ended interview style which allowed participants to provide genuinely personalized responses.

Conclusions. Future examination regarding the application of nature-based therapy to specific disorders, versus success rates with clients receiving other types of treatment exclusively, would be helpful. For instance, client control groups could be compared with experimental groups to further determine the efficacy of nature-based therapies. As aforementioned, some participants gave contradictory responses regarding which issues were and/or were not amenable to nature-based therapies. Therefore, success rates for clients (with various disorders) who are receiving only nature therapies could also be compared with one another. An additional study on the application of therapeutic gain from wilderness experience to real-life situations would also be useful.

## Appendix A: Interview Questions

Demographic Information: Type(s)/highest professional degree held~ Age~Gender~Type and private/public organization if any~Length of time with agency~General location~ Specialty

1. How did you become interested in using nature therapy?
2. How long have you been utilizing this type of therapy?
3. Describe why you use nature-based therapy, or if you have a particular philosophy behind your usage...
4. Do you advocate a challenge/adventure perspective, a meditative/restorative perspective, both, or neither?
5. Do you utilize other types of therapy besides nature-based treatment?
6. What method(s) and/or model(s) do you follow if any?
7. If you utilize other types, methods, or models of treatment, do you use nature-based therapy as a supplement, in conjunction with others, or exclusively depending upon the client?
8. In your opinion, what are the healing factors of nature that inspire you to use this therapy?
9. What particular nature-based activities do you utilize, and where are they implemented?
10. What issues do nature-based therapies help clients address successfully (e.g. anxiety, depression, self-esteem)?
11. What characteristics of clients may enable them to respond more favorably to nature-based treatments (e.g. their gender, ethnicity, or religious affiliation)?
12. What indicators do you use to measure success with nature-based treatment?
13. Have you encountered clients with certain issues for which this therapy was not useful, and if so why do you think it was not successful?

## Appendix B: Standardized Introduction

Hello, my name is Diane Waters/Trina Goldberger, and I am a graduate student in the MSW program at California State University, San Bernardino. My research partner and I are conducting a qualitative study on the benefits of spending time in wilderness areas on mental health. We encountered your name/agency name during our preliminary literature review, and we would like to clarify your appropriateness for and willingness to participate in our study. Do you/Does your agency, in fact, utilize nature-based therapies?

We will be interviewing ten to fifteen clinicians by telephone. Each interview should take approximately thirty minutes. The identity of participants and their agencies will remain confidential within the study, although we will need to collect each participant's name and address so that debriefing statements can be mailed accordingly. Identifying information will be maintained separately from the participant's responses. Each participant will also receive a calendar donated by Barnes and Noble Bookstore as a token of our appreciation. We will obtain your verbal informed consent at the time of the scheduled interview, and we will mail debriefing statements along with the calendars when the interview has been completed. The study has been approved by the Department of Social Work subcommittee of the California State University, San Bernardino Institutional Review Board. If you have any questions before agreeing to participate in this study, you may contact the Research Coordinator, Dr. Rosemary McCaslin, at (909) 880-5507. Would you/anyone in your agency be willing to talk with us about your professional endeavors?

(If the clinician is not appropriate for the study or does not agree to participate, we will simply thank them for their time.) Thank you for agreeing to participate. Your time and effort will greatly assist us in learning about an area of our interest, as well as adding to this specific body of knowledge within the mental health professions.

We would like to complete the interviews by March 16, 2000. The interviews will be scheduled on Tuesdays and Thursdays between 8:00 and 9:00 a.m., and between 2:30 and 5:00 p.m. PST. Do you have a date and time that will be convenient for you? (We will schedule interviews at another time, if necessary.) Do you know any other mental health professionals who/agencies that utilize this type of treatment?

## Appendix C: Verbal Informed Consent

The purpose of this qualitative study is to explore the benefits of nature-based therapies for clients who are dealing with mental health issues, and also to contribute recognition to nature-based therapeutic practices. Your participation will involve a telephone interview which will take approximately thirty minutes of your time. We need your name and address to mail your debriefing statement, but identifying information will be kept separately from all responses, and therefore your identity will remain confidential. You will receive a year 2000 calendar donated by Barnes and Noble bookstore in appreciation of your time and effort which will be mailed to you with the debriefing statement. The debriefing statement will include contact information, in case you have any questions or concerns after the interview, as well as the location of the final project. We need to obtain your verbal informed consent.

By giving your informed consent, you acknowledge that you understand the nature and purpose of this study, and that you are at least 18 years of age. Your participation is completely voluntary, and you may withdraw from this study at any time without penalty. Both Diane/Trina and I will be on the phone so that we are sure not to eliminate any important information. Do you agree to participate in this study? Please speak slowly and concisely so that we are able to handwrite your responses accurately during the interview.

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Interviewer's Signature

---

Date

---

Interviewer's Signature

---

Date



Appendix D: Debriefing Statement

(on department letterhead)

Trina Goldberger and Diane Waters  
Department of Social Work  
Cal State Univ. at San Bernardino  
5500 University Parkway  
San Bernardino, CA 92407-2397

(Date)

(Participant Name)

(Participant Address)

(Participant Address)

Dear (Participant Name),

We would like to thank you for your participation in our study. The purpose of our inquiry was to explore the current practice of nature-based therapies using an open-ended interview style. This qualitative research project may bring recognition to a possibly underutilized method of therapy in mental health.

Your responses will remain confidential as identifying information will be maintained separately from interview materials. Please accept the year 2000 calendar (donated by Barnes and Noble bookstore) as a token of our appreciation for your time and energy.

You may contact the Research Coordinator, Dr. Rosemary McCaslin, at (909) 880-5507 with any questions or concerns you may have regarding your participation. Upon completion of this project, we will send you the abstract which will contain general results. The study may be obtained in its entirety through the Pfau Library at California State University, San Bernardino by fall of 2000.

We thank you again for your participation.

Sincerely,

Trina Goldberger and Diane Waters, MSW Students

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